of adjacent territory would afford. The evidence offered of the large proportion of non-autophytic plants included in the pine-barren flora would tend to indicate a plant formation of considerable antiquity. The species from the far north in the pine-barrens are explained as having come down with the advancing ice sheets and having become isolated in bogs such as were probably to be found within the area in question during the glacial period. This evidence seems to add probability to the hypothesis, which seems to be the best yet offered in explanation of the peculiar flora of this interesting plant formation. —GEO. D. FULLER.

Origin of maize.—COLLINS[22] has been attacking the problem of the origin of maize by extensive cultures of the different types of maize, teosinte (*Euchlaena mexicana*), and teosinte-maize hybrids, through a period of seven years. The current view is that maize was derived from its nearest wild relative, teosinte. COLLINS concludes that it originated as a hybrid between teosinte and an unknown grass belonging to the Andropogoneae, a grass which resembled the earless varieties of pod corn (*Zea tunicata*). In enumerating the pronounced differences between teosinte and pod corn, he calls attention to the fact that in practically every case the characters of maize are intermediate. The origin of the maize "ear" has always been an interesting question. COLLINS regards it as the homologue of the central spike of the staminate inflorescence, but the central spike is quite as anomalous as the ear, and to account for it may call for the fasciation of simple branches of the inflorescence. In this sense, therefore, both opinions as to the nature of the maize ear (central spike or fasciation) may be right.—J. M. C.

Influence of adult on seedling.—HILL and DEFRAINE[23] have investigated the seedling structure of *Persoonia lanceolata* (Proteaceae) as a basis for the claim that the adult structure influences that of the seedling. The occurrence of polycotyledony among the Proteaceae is well known, and also the resemblance in the habit of some of them to the gymnosperms. The number of cotyledons in *P. lanceolata* ranges from three to five, and the authors are convinced that they have arisen by the splitting of two original structures. The details of the seedling structure further emphasize the close resemblance to the polycotyledonous gymnosperms, "a resemblance which is found not only in the general morphological configuration, but also in certain histological details and in the transition phenomena." The authors, of course, attach no phylogenetic significance to these similarities, but "the resemblance is considered as a striking instance of homoplasy in which the adult has influenced to a considerable extent the seedling."—J. M. C.

---

[22] COLLINS, G. N., The origin of maize. Jour. Wash. Acad. Sci. **2**:520–530. 1912.

[23] HILL, T. G., and DEFRAINE, E., On the influence of the structure of the adult plant upon the seedling. New Phytol. **11**:319–332. *figs.* 9. 1912.